

Serial No. 10/718,963
Docket No. 3994648-129161C (CPP 0004 NA)
Response date April 25, 2006
Response to Office Action of January 25, 2006

Amendments to the Claims

This listing of claims will replace all prior versions and listings of claims in the application.

Listing of the Claims

1-5. (Canceled).

6. (Currently Amended) A method for delivering uniform vacuum pressure in the process of thermoforming a corrugated plastic pipe in a mold, comprising the steps of:

a. providing at least one vacuum port connected to a ~~channel~~ manifold located on an external lateral surface of the mold, the ~~channel~~ manifold being axially concentric with a corrugation located on an internal lateral surface of the mold, the width of the ~~channel~~ manifold corresponding approximately to the width of the corrugation;

b. forming ~~an air-tight~~ the manifold by providing an outer cover on the external lateral surface, the manifold being ported to a plurality of slits formed in the corrugation through a plurality of slots in the mold, the slots having a large cross-sectional area relative to the aggregate area of the slits;

c. connecting a vacuum source to ~~said~~ the at least one vacuum port; and

d. exerting an essentially uniform negative pressure on each one of the plurality of slots, such that the change in negative pressure across the slots is small relative to the change in negative pressure across the slits.

7. (Original) The method of Claim 6 wherein each slot has the same width.

8. (Previously presented) The method of Claim 6 in which the change in pressure across the length of the slits is greater than the change in pressure from the vacuum source to the slits.

9. (Currently Amended) A method for efficiently removing heat during the process of thermoforming a corrugated plastic pipe in a mold, comprising the steps of:

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- a. ~~providing at least one vacuum port connected to a channel located on an external lateral surface of the mold that is axially concentric with a corrugation located on an internal lateral surface of the mold, the width of the channel corresponding approximately to the width of the corrugation~~ a mold for forming a corrugated pipe having an external lateral surface and an internal lateral surface, the mold is axially concentric with a corrugation located on the internal lateral surface;
- b. ~~forming an air-tight manifold by providing a first cover on the external lateral surface, the manifold being ported to a plurality of slits in the corrugation and having a depth and a width, wherein the depth is greater than the width;~~
- c. providing at least one vacuum port connected to the manifold located on the external lateral surface of the mold;
- d. ~~providing a second cover that forms an outer circumferential duct between the channel and said~~ the second cover;
- e. ~~connecting a source of high velocity cooling air to an opening in the second cover; and~~
- f. ~~forcing a turbulent flow of cooling air through the duct.~~

10. (Canceled).